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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,771	10/14/2003	Andrew Sendonaris	030217	3358

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QUALCOMM INCORPORATED
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EXAMINER

TRAN, PABLO N

ART UNIT PAPER NUMBER

2618

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/684,771	Applicant(s) SENDONARIS ET AL.	
	Examiner Pablo N. Tran	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-20, 23-32, 34-36 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 21, 22 and 33 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date: _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date: _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 13, 16-20, 23-29, 34, and 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Horton et al. (6,041,222).

As per claims 1, 23, and 34, Horton et al. disclose a communications device having a tunable oscillator (fig. 10) configured to produce a reference signal, a receiver configured to recover an information signal from a carrier using the reference signal, and a processor configured to detect a frequency error in the information signal and periodically tune the oscillator to reduce the frequency error (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 2 and 24, Horton et al. disclose a rotator configured to compensate for the frequency error concurrently with the periodic tuning of the oscillator (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 3 and 25, Horton et al. disclose an acquisition state and a synchronized state and the processor being further configured to acquire the carrier

without tuning the oscillator during the acquisition state, and periodically tune the oscillator to reduce the frequency error and use the rotator to compensate for the frequency error during the synchronized state (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 4, 17, 26, and 36, Horton et al. disclose the tunable oscillator is configured to produce a second reference signal, the communications device further comprising a second receiver configured to recover a second information signal from a second carrier using the second reference signal and the processor being further configured to disable the second receiver during the tuning of the oscillator (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 5, 18, and 27, Horton et al. disclose the processor is configured to provide to the second receiver a signal relating to the frequency error and wherein the second receiver is further configured to use the signal relating to the frequency error to acquire the second carrier following the tuning of the oscillator (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 6, 19, and 28, Horton et al. disclose the second receiver comprises a Global Positioning Satellite receiver (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claims 7, 20 and 29, Horton et al. disclose the processor comprises a wide band code division multiple access processor (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claim 13, as stated above in claim 1, Horton et al. further disclose a processor configured to detect a frequency error in the information signal and tune the oscillator if the frequency error crosses a threshold (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

As per claim 16, as stated above in claim 1, Horton et al. further disclose the processor is further configured to interface to a particular communications network, and wherein the threshold is a function of the particular communications network for which the processor is configured to interface with (col. 9/ln. 66-col. 10/ln. 23, col. 11/ln. 12-col. 12/ln. 9, col. 12/ln. 62-col. 13, 32).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 8-10, 14-16, 30-32, and 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Horton et al. (6,041,222) in view of Justice et al. (6,424,229).

As per claims 8, 14, 30 and 35, Horton disclosed such frequency error threshold but not specifically such frequency error crosses a first threshold, and once enabled, continues tuning the oscillator until the frequency error is reduced below a second threshold. Justice suggested such frequency error reduction below a second threshold

(fig. 3, col. 4/ln. 30-62). Therefore, it would have been obvious to one of ordinary skill in the art to provide such frequency error reduction, as suggested by Justice et al., to the communication system of Horton et al. in order to provide a fast response due to the changed in the state of the tuning circuit.

As per claims 9, 15, and 31, the modified communication system of Horton et al. and Justice et al. further disclose the first threshold is greater than the second threshold (see Justice et al., col. 4/ln. 30-62).

As per claims 10, 16, and 32, the modified communication system of Horton et al. and Justice et al. further disclose the first and second thresholds are a function of the particular communications network for which the processor is configured to interface with (see Justice et al., col. 4/ln. 30-62).

Allowable Subject Matter

5. Claims 11-12, 21-22, and 33 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed 10/02/06 have been fully considered but they are not persuasive.

The Applicant stated that, "Horton et al. does not teach to detect the frequency error". In response to the Applicant, Horton disclose such method of detecting frequency error (abstract, col. 8/ln. 9-23, col. 9/ln. 38-55). Therefore, the rejection is proper.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pablo Tran whose telephone number is (571)272-7898. The examiner normal hours are 9:30 -5:00 (Monday-Friday). If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571)272-7899. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Art Unit: 2618

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) System. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-directauspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PABLO N. TRAN
PRIMARY EXAMINER



AU2618

November 30, 2006